CERTIFICATE OF MAILING BY "EXPRESS MAIL" (37 CFR 1.10) Applicant(s): Claussen et al.			Docket No. 60680-553	
Application No. 10/004,719	Filing Date 12/04/2001	Examiner Dickens, C.	Customer No. 26127	Group Art Unit 2855

Invention: TIRE PRESSURE MONITORING METHOD

I hereby certify that the following correspondence:

Appeal Brief

(Identify type of correspondence)

is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on

October 6, 2004
(Date)

Mary F. Peltier
(Typed or Printed Name of Person Mailing Correspondence)

Mary F. Peltier
(Signature of Person Mailing Correspondence)

ER521953173US
("Express Mail" Mailing Label Number)

Note: Each paper must have its own certificate of mailing.

10-07-04

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:	Claussen et al.		
Serial No.:	10/004,719	Group Art Unit:	2855
Filed:	12/04/2001	Examiner:	Dickens,C.
For:	TIRE PRESSURE MONITORING METHOD		
Atty. Dkt. No.:	60,680-553		

Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

APPEAL BRIEF PURSUANT TO 37 C.F.R. § 1.192

Dear Sir:

Appellants submit, in triplicate, the following Appeal Brief pursuant to 37 C.F.R. § 1.192 for consideration by the Board of Patent Appeals and Interferences. Please charge the cost of filing the opening brief, namely $330.00, as required under 37 C.F.R. § 1.17(c), to deposit account 04-2223. Further, please charge any additional fees required or credit any overpayment to the same deposit account.

Certificate of Express Mailing

I hereby certify that this Appeal Brief Pursuant to 37 C.F.R .§ 1.192 is being deposited with the United States Postal Service as Express Mail No. ER521953173US, postage prepaid, in an Express Mail envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450, on this 6th day of October 2004.

Mary Pelter

10/12/2004 CNGUYEN 00000083 042223 10004719
01 FC:1402 340.00 DA

TABLE OF CONTENTS

TABLE OF AUTHORITIES

I. REAL PARTY IN INTEREST

Dana Corporation is the assignee of all rights in this invention and is the real party in interest.

II. RELATED APPEALS AND INTERFERENCES

Neither Appellants, Appellants' representatives, nor Dana Corporation (the assignee) knows of any appeal, interference or judicial proceeding that may be related to, that will directly affect or that will be directly affected by or have a bearing on the Board's decision in the present appeal.

III. STATUS OF CLAIMS

Claims 16-29 are presently pending in this application. Claims 16-29 have been finally rejected. The rejection of claims 16-29 is being appealed.

IV. STATUS OF AMENDMENTS

No amendment has been filed subsequent to the final rejection. A reply to the final rejection (without amendments) was filed on April 5, 2004. Although submitted within two months of the date of the final rejection, no Advisory Action or other action was ever received from the Patent and Trademark Office thereby necessitating the present appeal.

V. SUMMARY OF CLAIMED SUBJECT MATTER

This invention relates to a method for determining the tire pressure of a vehicle tire (28—Figs. 1-2) in a vehicle (12—Fig. 1) having an on-board tire pressure

management system (10—Fig. 1).[1] In particular, the invention relates to a method that enables monitoring of tire pressure without causing undesirable increases in tire pressure.[2] A conventional tire pressure management system includes a fluid control circuit (36—Fig. 1) that conducts air between a fluid source (32—Fig. 1), a vacuum source (34—Fig.1) and the interior of the vehicle tires (28—Figs. 1-2) to regulate tire pressure.[3] Tire pressure is determined (whether as part of a monitoring process or as part of tire inflation or deflation processes) by generating a pulse of compressed fluid having a pressure greater than the tire pressure in a conduit of the fluid control circuit (36—Figs. 1-2) to open a wheel end valve (30—Figs. 1-2) disposed between the conduit and the vehicle tire (28—Figs. 1-2).[4] Because the pressure is greater than tire pressure, the wheel end valve (30—Figs. 1-2) opens and the conduit and the tire (28—Figs. 1-2) settle to a static pressure value that can be measured.[5] This operation results in a slight increase in tire pressure.[6] In systems where tire deflation is not implemented on a regular basis, repeated monitoring operations can therefore lead to a cumulative undesirable increase in tire pressure.[7]

---

[1] See specification, page 2, lines 3-4.

[2] Id.

[3] Applicant has identified general components found in conventional systems by reference to corresponding components in the inventive system illustrated by Applicants. This action has been taken only to facilitate an understanding of conventional systems, however, and is not intended to constitute an admission that the illustrated system and the referenced components of that system are "conventional" in the art.

[4] Id.; see specification page 1, lines 8-16

[5] Id.

[6] See specification page 1, lines 17-21

[7] See specification page 1, lines 22-25.

One embodiment of the inventive method as recited in independent claim 16 begins with the step of ascertaining (S30—Fig. 4) a first fluid pressure in a conduit (94 or 96—Fig. 1) disposed between a fluid source (32—Fig. 1) and the tire (28) using a sensor (200—Fig. 1) disposed in the conduit (94 or 96—Fig. 1).[8] The method continues with the step of comparing (S35—Fig. 4) the first fluid pressure to a target pressure.[9] The method further continues with the step of providing (S50—Fig. 4) a pulse of compressed fluid to the conduit (94 or 96—Fig. 1) when the first fluid pressure is less than the target pressure.[10] The pulse has a duration determined responsive to a duration of a previous pulse of compressed fluid provided to the conduit (94 o4 96—Fig. 1) and a change in pressure in the conduit (94 or 96—Fig. 1) resulting from the previous pulse.[11] Finally, the inventive method includes the step of repeating the ascertaining (S30—Fig. 4), comparing (S35—Fig. 4), and providing (S50—Fig. 4) steps until the first fluid pressure in the conduit (94 or 96—Fig. 1) reaches the target pressure.[12]

Another embodiment of the inventive method as recited in independent claim 23 again begins with the step of ascertaining (S30—Fig. 4) a first fluid pressure in a conduit (94 or 96—Fig. 1) disposed between a fluid source (32—Fig. 1) and the tire (28) using a sensor (200—Fig. 1) disposed in the conduit (94 or 96—Fig. 1).[13] The method continues

---

[8] See specification at page 10, lines 10-12.

[9] See specification at page 10, lines 13-15.

[10] See specification at page 11, lines 3-4.

[11] See specification at page 11, lines 6-23.

[12] See Figure 4.

[13] See specification at page 10, lines 10-12.

with the step of comparing (S35—Fig. 4) the first fluid pressure to a target pressure.[14] The method then continues with the step of incrementing a counter when the first fluid pressure is less than the target pressure.[15] The method continues with the step of comparing (S45—Fig. 4) the counter to a predetermined value.[16] The method further continues with the step of providing (S50—Fig. 4) a pulse of compressed fluid to the conduit (94 or 96—Fig. 1) when the first fluid pressure is less than the target pressure.[17] The pulse has a duration determined responsive to a duration of a previous pulse of compressed fluid provided to the conduit (94 o4 96—Fig. 1) and a change in pressure in the conduit (94 or 96—Fig. 1) resulting from the previous pulse.[18] Finally, the inventive method includes the step of repeating the ascertaining (S30—Fig. 4), comparing (S35—Fig. 4), and providing (S50—Fig. 4) steps until the first fluid pressure in the conduit (94 or 96—Fig. 1) reaches the target pressure or the counter reaches the predetermined value.[19]

In the claimed invention, therefore, pulses of compressed fluid less having pressures *less than* a target pressure are repeatedly introduced into the conduit (94 or 96—Fig. 1) with the pressure gradually increasing until the pressure in the conduit (94 or

---

[14] See specification at page 10, lines 13-15.

[15] See specification at page 10, lines 24-25 and Figure 4.

[16] See specification ate page 10, line 24 to column 5, lines 2 and Figure 4.

[17] See specification at page 11, lines 3-4.

[18] See specification at page 11, lines 6-23.

[19] See Figure 4.

96—Fig. 1) reaches the target pressure.[20] In this manner, the pressure in the conduit (94 or 96—fig. 1) is maintained at or below the tire pressure during monitoring operations and undesirable pressure increases in the tire pressure are avoided.[21]

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

1. The rejection of claims 16-29 as unpatentable under 35 U.S.C. § 103(a) over U.S. Patent No. 5,409,045 ("Walker et al.") in view of U.S. Patent No. 5,505,080 ("McGhee").

VII. ARGUMENTS

Claims 16-29 stand rejected as being unpatentable under 35 U.S.C. § 103(a) over Walker et al. (U.S. Patent No. 5,409,045) in view of McGhee (U.S. Patent No. 5,505,080). Applicants respectfully submit that the rejection of claims 16-29 under 35 U.S.C. § 103(a) is improper because the combination of Walker et al. and McGhee fails to teach or suggest all of the limitations set forth in the claims.

"Patent examiners carry the responsibility of making sure that the standard of patentability enunciated by the Supreme Court and by the Congress is applied in each and every case." MPEP § 2141 (emphasis in original).

> To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all of the claim limitations.

---

[20] See specification at page 11, lines 24-26.

[21] See specification at page 11, lines 26-27.

MPEP § 2143. Applicant submits that the combination of Walker et al. and McGhee fails to teach or suggest all of the limitations set forth in claims 16-29.

A. Rejection of Independent Claims 16 and 23

Independent claim 16 recites a "[m]ethod of determining a tire pressure in a vehicle tire" including the step of "providing a pulse of compressed fluid to said conduit when said first fluid pressure is *less than said target pressure*". Claim 23 recites substantially similar limitations. Applicants respectfully submit that the combination of Walker et al. and McGhee does not disclose or suggest a method for determining a tire pressure meeting the above-recited limitations.

Applicants' claimed invention is directed to tire pressure monitoring. In a conventional system, tire pressure is determined (whether as part of a monitoring process or as part of tire inflation or deflation processes) by generating a pulse of compressed fluid having a pressure greater than the tire pressure. Because the pressure is greater than tire pressure, the wheel end valve opens and the conduits of the air control circuit and the tire settle to a static pressure value. This operation results in a slight increase in tire pressure. In systems where tire deflation is not implemented on a regular basis, the repeated monitoring operations can therefore lead to a cumulative undesirable increase in tire pressure. In Applicants claimed invention, pulses of compressed fluid less having pressures *less than* a target pressure are repeatedly introduced into the conduit with the pressure gradually increasing until the pressure in the conduit opens the wheel end valve. In this manner, the pressure in the conduit is maintained at or below the tire pressure during monitoring operations and undesirable pressure increases in the tire pressure are avoided.

Walker et al. discloses a method for controlling tire deflation as opposed to a method for monitoring tire pressure as claimed by Applicants. As part of the disclosed method, Walker determines the tire pressure in a central conduit and compares the measured pressure to a target pressure. Col. 6, lines 47-57. Walker does not, however, "provid[e] a pulse of compressed fluid to said conduit when said first fluid pressure is less than said target pressure." as recited in claim 16 and in substantially similar terms in claim 23. Rather, Walker adjusts the pressure in the conduit when the measured pressure is greater than the target pressure—consistent with the purpose of deflating the tire. See Figure 5, ("$P_o > P_D$?") and Figure 5A ("$P_N > P_T$?") (within Walker et al., P_O and P_N are measured pressure values while P_D and P_T are "desired" or "target" pressure values, respectively). Further, Applicants submit that McGhee simply does not disclose or suggest any control algorithms for monitoring or controlling tire pressure—much less the steps of the claimed method.

In the Final Office Action, the Examiner stated that the above arguments were not persuasive and went on to state: "In col. 9, lines 46, 47, Walker et al. discusses adding a fluid pressure lower than desired pressures." Office Action of February 6, 2004, page 4, lines 16-17. Applicants respectfully submit, however, that the Examiner has read the cited lines out of context and, further, that the Examiner has failed to consider the language of the claims as a whole.

The two lines in Walker et al. cited by the Examiner are taken from claim 1 of Walker. The lines relate to a tire deflation process in which a predetermined fluid pressure that is lower than possible operator selected levels (*See* Walker et al., col. 9, lines 46-47 "lower than any of said selectable desired inflation pressures...") is used to

open tire valves 32, 34 to connect the tires to a vent in order to deflate the tires. *See* Walker et al. col. 10, lines 1-6 ("....automatically responsive to said second fluid pressure in said conduit means to simultaneously connect the interior pressure chambers of all of said tires to vent means (22) for decreasing inflation pressure of said tires..."). Accordingly, the cited passage discloses the conventional technique of providing a pressure lower than tire pressure after opening the wheel end valves to promote fluid flow out of the vehicle tires and deflate the tires. The cited passage does not disclose or suggest the step of "providing a pulse of compressed fluid to said conduit when said first fluid pressure is less than said target pressure" as recited in the independent claims.

Independent claims 16 and 23 each recite "providing a pulse of compressed fluid to said conduit when said first fluid pressure is less than said target pressure." The claims further define the "first fluid pressure" as a fluid pressure ascertained from "a conduit disposed between a fluid source and said tire." Accordingly, the claimed method provides a pulse of compressed fluid to the conduit (as part of the overall tire monitoring method) in response to a determination that the pressure in the conduit is *less than* a target pressure. In the passage of Walker et al. cited by the Examiner, fluid pressure is being provided as part of a deflation cycle. Accordingly, fluid pressure is provided only in response to a determination that the measured pressure in the conduit is greater than the target pressure. See e.g., col. 7, lines 42-45 ("The control unit will determine that a deflation operation is required when currently sensed tire pressure, P_O, exceeds desired pressure, P_D, by greater than an acceptable error value." (emphasis added)); See also Figure 5, ("$P_o > P_D$?") and Figure 5A ("$P_N > P_T$?").

McGhee also fails to disclose or suggest a the step of "providing a pulse of compressed fluid to said conduit when said first fluid pressure is less than said target pressure." As mentioned above, McGhee does not disclose or suggest any control algorithms for monitoring or controlling tire pressure. Instead McGhee has simply been cited by the Examiner as teaching the use of a sensor in a fluid conduit.

Because the combination of Walker et al. and McGhee fails to teach or suggest all of the claimed limitations, Applicants respectfully submit that the Examiner has failed to establish a prima facie case of obviousness and that the rejection of independent claims 16 and 23 under 35 U.S.C. § 103(a) is improper. Accordingly, Applicants request that the rejection of claims 16 and 23 under 35 U.S.C. § 103(a) be overturned. Further because each of claims 17-22 and 24-29 depend from one of the aforementioned independent claims, Applicants submit that the rejection of claims 17-22 and 24-29 under 35 U.S.C. § 103(a) is also improper and request that the rejection be overturned.

B. Rejection of Claims 17 and 24

Claims 17 and 24 depend from claims 16 and 23, respectively, and therefore incorporate all of the limitations set forth in claims 16 and 23, respectively. Applicants therefore submit that, for the reasons stated in Section VII.A, the rejection of claims 17 and 24 under 35 U.S.C. § 103(a) is improper and request that the rejection be overturned. Applicants further submit that claims 17 and 24 recite patentable subject matter apart from the dependence on claims 16 and 23.

Claims 17 and 24 each recite "wherein said first fluid pressure is ascertained following a predetermined hold time that begins after said previous pulse is provided to

said conduit." Applicants respectfully submit that neither Walker et al. nor McGhee disclose or suggest a method meeting the recited limitation.

The Examiner has identified only col. 7, lines 47-49 of Walker et al. as evidence that the combination meets the recited limitation. Col. 7, lines 46-51 from Walker et al. is reproduced below:

> The CPU 88, based upon the values of current pressure, P_O, and desired pressure, P_D, will, for the initial deflation cycle, calculate the time duration, T_O, for the initial deflation cycle utilizing a predetermined rate of deflation corresponding to the maximum possible rate of deflation from P_O to P_D.

The passage, quite clearly, refers to calculating the duration of a deflation cycle. The passage says absolutely nothing regarding predetermined time periods or waiting for a predetermined time period to pass after a pressure pulse to ascertain fluid pressure as recited in claims 17 and 24. Further, Applicants have been unable to identify any portion of Walker et al. or McGhee disclosing or suggesting a method meeting the recited limitation. Applicants respectfully submit, therefore, that the rejection of claims 17 and 24 under 35 U.S.C. § 103(a) is improper even apart from the dependence on claims 16 and 23 and request that the rejection be overturned.

C. Rejection of Claims 19 and 26

Claims 19 and 26 depend from claims 16 and 23, respectively, and therefore incorporate all of the limitations set forth in claims 16 and 23, respectively. Applicants therefore submit that, for the reasons stated in Section VII.A, the rejection of claims 19 and 26 under 35 U.S.C. § 103(a) is improper and request that the rejection be overturned. Applicants further submit that claims 19 and 26 recite patentable subject matter apart from the dependence on claims 16 and 23.

Claims 19 and 26 each recite "wherein said duration of said pulse is determined in accordance with the following formula: $D_1=n * D_0 * [(P_T-temp_1)/(temp_1-P_L)]$ wherein n is a predetermined value, D_0 is said duration of said previous pulse, P_T is said target pressure, temp1 is said first fluid pressure and P_L is a previous fluid pressure in said conduit resulting from said previous pulse." Applicants respectfully submit that neither Walker et al. nor McGhee disclose or suggest a method meeting the recited limitation.

The Examiner has identified only Figures 5, 5A and 6 of Walker et al. as evidence that the combination of references meets the recited limitation. These Figures do not support the Examiner's position, however. Walker et al. does indicate that pulse duration is calculated in some circumstances with reference to current pressure, target pressure, previously measured pressure values and previous pulse durations. See Col. 7, lines 56-64. Walker et al., however, nowhere discloses the specific formula for this calculation as recited in claims 19 and 26. Further, the Figures identified by the Examiner indicate a different formula is used to the extent any formula is disclosed. Figure 5 simply states "T_O FUNCTION OF P_O- P_T AND OF PREDETERMINED MAX. RATE OF DEFLATION FROM P_O TO P_T." Figure 5A states "T_O FUNCTION OF $(P_N - P_T)$ AND $(P_{N-1} - P_N)/ T_{N-1}$." Figure 6 simply states "CALCULATE T_N AS FUNCTION OF P_N, P_T, P_{N-1}, T_{N-1}." None of these examples appears to equate to Applicants' claimed formula. Applicants respectfully submit, therefore, that the rejection of claims 19 and 26 under 35 U.S.C. § 103(a) is improper even apart from the dependence on claims 16 and 23 and request that the rejection be overturned.

D. Rejection of Claims 20 and 27

Claims 20 and 27 depend from claims 16 and 23, respectively, and therefore incorporate all of the limitations set forth in claims 16 and 23, respectively. Applicants therefore submit that, for the reasons stated in Section VII.A, the rejection of claims 19 and 26 under 35 U.S.C. § 103(a) is improper and request that the rejection be overturned. Applicants further submit that claims 20 and 27 recite patentable subject matter apart from the dependence on claims 16 and 23.

Claims 20 and 27 each recite "determining a second fluid pressure in said conduit following a predetermined line leak hold time; and, comparing said first and second fluid pressures." Applicants respectfully submit that neither Walker et al. nor McGhee disclose or suggest a method meeting the recited limitation.

The Examiner has identified only Figures 5, and 5A of Walker et al. as evidence that the combination of references meets the recited limitation. These Figures again do not support the Examiner's position, however. Virtually every comparison in pressure values referred to in Figures 5 and 5A is a comparison between one measured pressure value (e.g., P_N) and a *target* (i.e., P_T)or *desired* (i.e., P_D) pressure value. In other words virtually all comparisons referred to in these Figures are between a measured value and a *pre-set* value—not another measured value. The only indication anywhere within Figures 5 and 5A of a comparison between two measured pressure values is found in Figure 5A with the recitation of "$(P_{N-1} - P_N)$." To the extent this parenthetical is considered a comparison of measured pressure values, however, there is no indication that the pressure value is determined "following a predetermined line leak hold time" as recited in the claims. Applicants respectfully submit, therefore, that the rejection of claims 20 and 27

under 35 U.S.C. § 103(a) is improper even apart from the dependence on claims 16 and 23 and request that the rejection be overturned.

E. Rejection of Claims 21 and 28

Claims 21 and 28 depend from dependent claims 20 and 27, respectively (and from independent claims 16 and 23, respectively) and therefore incorporate all of the limitations set forth in claims 20 and 27, respectively (and claims 16 and 23, respectively). Applicants therefore submit that, for the reasons stated in Section VII.D (and VII.A), the rejection of claims 21 and 28 under 35 U.S.C. § 103(a) is improper and request that the rejection be overturned. Applicants further submit that claims 21 and 28 recite patentable subject matter apart from the dependence on claims 20 and 27 (and 16 and 23).

Claims 21 and 28 each recite "wherein said tire pressure equals said first fluid pressure if a difference between said first and second fluid pressures is less than a predetermined amount." Applicants respectfully submit that neither Walker et al. nor McGhee disclose or suggest a method meeting the recited limitation.

The Examiner has identified only column 10, lines 25-35 of Walker et al. as evidence that the combination of references meets the recited limitation. Col. 10, lines 25-35 from Walker et al. is a portion of claim 1 of Walker et al. and is reproduced below:

> (ii) then causing in sequence the interior pressure chambers of all of said inflatable tires to be connected to said vent means in response to said second fluid pressure lower than any of said selectable desired inflation pressures and then exposing the pressure transducer to a fluid pressure equal to the inflation pressure of one of said tires to measure an updated pressure value until the updated measured inflation pressure value is substantially equal to said target pressure value, and...

The language recited in claims 21 and 28 states that the tire pressure is determined to be a previously measured pressure value (i.e., the "first fluid pressure") if the difference

between the previously measured pressure value and a subsequently measured pressure value (i.e., the "second fluid pressure") is less than a predetermined amount (because the comparison indicates that there is no leak in the fluid lines). The passage cited by the Examiner at best indicates that tire pressure is determined to be *the most recently measured pressure value* under select circumstances (rather than an earlier measured pressure value as recited in the claims) In particular, the passage describes a deflation operation in which tire pressure is vented and "exposing the pressure transducer to a fluid pressure equal to the inflation pressure of one of said tires to measure an updated pressure value until the updated measured inflation pressure value is substantially equal to said target pressure value." Applicants respectfully submit, therefore, that the rejection of claims 21 and 28 under 35 U.S.C. § 103(a) is improper even apart from the dependence on claims 20 and 27 (and 16 and 23) and request that the rejection be overturned.

F. Rejection of Claims 22 and 29

Claims 22 and 29 depend from dependent claims 20 and 27, respectively (and from independent claims 16 and 23, respectively) and therefore incorporate all of the limitations set forth in claims 20 and 27, respectively (and claims 16 and 23, respectively). Applicants therefore submit that, for the reasons stated in Section VII.D (and VII.A), the rejection of claims 22 and 29 under 35 U.S.C. § 103(a) is improper and request that the rejection be overturned. Applicants further submit that claims 22 and 29 recite patentable subject matter apart from the dependence on claims 20 and 27 (and 16 and 23).

Claims 22 and 29 each recite "logging a line leak fault if a difference between said first and second fluid pressures is greater than a predetermined amount." Applicants

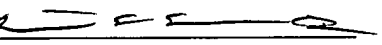
respectfully submit that neither Walker et al. nor McGhee disclose or suggest a method meeting the recited limitation.

The Examiner has identified only column 5, lines 57-64 of Walker et al. as evidence that the combination of references meets the recited limitation. That passage is reproduced below:

> The control valve assembly is effective to selectively vent conduit 20 to atmosphere to vent passages 24 and 26, to pressurize conduit 20 to a relatively high pressure for inflation of the tires, to pressurize conduit 20 to a relatively low pressure to deflate the tires or to pulse conduit 20 with a high pressure to open the wheel end valves 32 and 34 to allow conduit 20 to stabilize at the average pressure in the tire chambers.

There is simply nothing in the above-recited passage that could possibly be construed as disclosing or suggesting "logging a line leak fault if a difference between said first and second fluid pressures is greater than a predetermined amount" as recited in claims 22 and 29. Rather, the passage simply describes the operation of a valve assembly. Applicants respectfully submit, therefore, that the rejection of claims 22 and 29 under 35 U.S.C. § 103(a) is improper even apart from the dependence on claims 20 and 27 (and 16 and 23) and request that the rejection be overturned.

Respectfully submitted,



William F. Kolakowski III
Registration No. 41908
Customer No. 26,127
DYKEMA GOSSETT PLLC
39577 Woodward Ave., Ste. 300
Bloomfield Hills, MI 48304
(248) 203-0822
Attorney for Applicant

VIII. CLAIMS APPENDIX

16. A method of determining a tire pressure in a vehicle tire comprising the steps of:

ascertaining a first fluid pressure in a conduit disposed between a fluid source and said tire using a sensor disposed in said conduit;

comparing said first fluid pressure to a target pressure;

providing a pulse of compressed fluid to said conduit when said first fluid pressure is less than said target pressure, said pulse having a duration determined responsive to a duration of a previous pulse of compressed fluid provided to said conduit and a change in pressure in said conduit resulting from said previous pulse; and,

repeating said ascertaining, comparing, and providing steps until said first fluid pressure in said conduit reaches said target pressure.

17. The method of claim 16 wherein said first fluid pressure is ascertained following a predetermined hold time that begins after said previous pulse is provided to said conduit.

18. The method of claim 16 wherein said duration of said previous pulse is a preset period.

19. The method of claim 16 wherein said duration of said pulse is determined in accordance with the following formula:

$$D_1 = n * D_0 * [(P_T - temp_1)/(temp_1 - P_L)]$$

wherein n is a predetermined value, D_0 is said duration of said previous pulse, P_T is said target pressure, temp1 is said first fluid pressure and P_L is a previous fluid pressure in said conduit resulting from said previous pulse.

20. The method of claim 16, further comprising the steps of:

determining a second fluid pressure in said conduit following a predetermined line leak hold time; and,

comparing said first and second fluid pressures.

21. The method of claim 20 wherein said tire pressure equals said first fluid pressure if a difference between said first and second fluid pressures is less than a predetermined amount.

22. The method of claim 20 further comprising the step of logging a line leak fault if a difference between said first and second fluid pressures is greater than a predetermined amount.

23. A method of determining a tire pressure in a vehicle tire comprising the steps of:

ascertaining a first fluid pressure in a conduit disposed between a fluid source and said tire using a sensor disposed in said conduit;

comparing said first fluid pressure to a target pressure;

incrementing a counter when said first fluid pressure is less than said target pressure;

comparing said counter to a predetermined value;

providing a pulse of compressed fluid to said conduit when said first fluid pressure is less than said target pressure and said counter is less than said predetermined value, said pulse having a duration determined responsive to a duration of a previous pulse of compressed fluid provided to said conduit and a change in pressure in said conduit resulting from said previous pulse; and,

repeating said ascertaining, comparing, and providing steps until said first fluid pressure in said conduit reaches said target pressure or said counter reaches said predetermined value

24. The method of claim 23 wherein said first fluid pressure is ascertained following a predetermined hold time that begins after said previous pulse is provided to said conduit.

25. The method of claim 23 wherein said duration of said previous pulse is a preset period.

26. The method of claim 23 wherein said duration of said pulse is determined in accordance with the following formula:

$$D_1=n * D_0 * [(P_T-temp_1)/(temp_1-P_L)]$$

wherein n is a predetermined value, D_0 is said duration of said previous pulse, P_T is said target pressure, temp1 is said first fluid pressure and P_L is a previous fluid pressure in said conduit resulting from said previous pulse.

27. The method of claim 23, further comprising the steps of:

determining a second fluid pressure in said conduit following a predetermined line leak hold time; and,

comparing said first and second fluid pressures.

28. The method of claim 27 wherein said tire pressure equals said first fluid pressure if a difference between said first and second fluid pressures is less than a predetermined amount.

29. The method of claim 27 further comprising the step of logging a line leak fault if a difference between said first and second fluid pressures is greater than a predetermined amount.

IX. EVIDENCE APPENDIX

[THIS SECTION INTENTIONALLY LEFT BLANK]

X. RELATED PROCEEDINGS APPENDIX

[THIS SECTION INTENTIONALLY LEFT BLANK]

DYKEMA GOSSETT•A PROFESSIONAL LIMITED LIABILITY COMPANY•39577 WOODWARD AVENUE•SUITE 300•BLOOMFIELD HILLS, MICHIGAN 48304-5086

BH01\483935.1
ID\WFK